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REMARKS/ARGUMENTS

Claims 11-15 and 24-27 are pending in this application. Claims ~~11, 24~~, 26, and 27 have been amended for clarity. For example, a comma has been deleted from claim 11.

I. Claim 15

The continued indication that independent claim 15 is allowable is acknowledged and appreciated.

II. Claims 11-14, and 24-27

With respect to the present invention, claims 11 and 24 are independent claims and stand rejected under 35 U.S.C. § 103(a) as unpatentable over Applicant's admitted prior art (APA) in view of Ishizaki et al. (US Patent # 5,182,658). Independent claims 11 and 24 each recite, in pertinent part, "a plurality of types of outputs with **different electric charge accumulation times** are produced by **each** of said light-receiving elements" (emphasis added).

To establish *prima facie* obviousness under 35 U.S.C. § 103(a) requires that all the claim limitations must be taught or suggested by the prior art. *In re Rokya*, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974). The examiner admits that APA does not disclose the aforementioned limitation, and therefore relies on Ishizaki as alledgedly obviating this deficiency of APA. Specifically, the pending Office Action asserts at page 3 that Ishizaki discloses:

> a CPU 18 for controlling the electric charge accumulation time of plurality of said light-receiving elements such that a plurality of types of outputs with different electric charge accumulation times are produced by each of said light receiving elements (e.g. Vmax and Vmin shown in figure 4 corresponding to different accumulation times), discriminating whether at least one of said plurality of types of output signals is saturated for each one of the two-dimensionally arranged light-receiving elements (figure5, col. 5 lines 19-28, box 303) and selecting said non-saturated signals among said plurality of types of output signals for each one of the plurality of two-dimensionally arranged light-receiving elements based on the result of the discrimination (output NO LOOP of the box 303 represents signals that are unsaturated).

However, it is respectfully submitted that Ishizaki does not disclose the claim limitation "a plurality of types of outputs with **different electric charge accumulation times** are produced by **each** of said light-receiving elements" (emphasis added). Accordingly, even assuming *arguendo* proper, the proposed combination does not disclose or suggest the claimed combination.

Specically, the Ishizaki figure 4 Vmax and Vmin signals do not correspond to different accumulation times. Ishizaki column 2 linc 41 explains that "reference numeral 11 denotes a photoelectric converting device comprising a plurality of photoelectric converting elements having a function to detect the maximum value Vmax and the minimum value Vmin of an accumulation signal during the accumulation." In Ishizaki, each individual photoelectric converting element produces a single voltage, and the photoelectric converting device selects the greatest voltage from all of the elements as Vmax, and selects the smallest voltage from all of the elements as Vmin.

Thus, Ishizaki finishes the accumulation process for the entire photoelectric converting device 11 when Vmax reaches the saturation level (according to box 204 in figure 2, or according to box 303 in figure 5), or else finishes before Vmax reaches the saturation level if certain other conditions are satisfied (according to box 304 and box 305 in figure 5). Note that the entire plurality of photoelectric converting elements in photoelectric converting device 11 is finished ***when a single element is saturated***. In summary, Ishizaki discloses only one accumulation time, as shown in figure 2 and figure 5. Indeed, Ishizaki merely discloses a one-time electric charge accumulation, so that accumulation stop timing is determined to avoid output saturation. The present invention can be directed to solve the problem that, for example, output is partly saturated and output inferior in S/N ratio is produced during a common

accumulation time when a three-dimensional input apparatus is used to obtain a two-dimensional image and an object has a bright portion or a dark portion locally in an object (two dimensional-imaging) area.

Accordingly, Ishizaki discloses only a **single, common accumulation time** for the electric charge accumulation of **all** of the photoelectric converting elements. Whereas, in the present invention, "a plurality of types of outputs with **different electric charge accumulation times** are produced by **each** of said light-receiving elements" (emphasis added).

Support for the claim 11 and 24 limitation "a plurality of types of outputs with different electric charge accumulation times are produced by each of said light-receiving elements" is provided, for example, by Applicants' Fig. 34(A) to 34(D), and by Applicants' specification on page 56, line 21 through page 58, line 19. In particular, Applicants' specification on page 58, line 10, describes one exemplary embodiment, ie. Fig. 34(D) by stating "the value S12 equal to the light receiving data S11 multiplied by 4 is used as the value of the light-receiving data in the section SR. By doing so, the light-receiving data high in S/N ratio can be obtained also for the intended pixel g2." Such a configuration can decrease the effect of noises, and increase the accuracy of an image, as discussed at Applicant's specification page 58, lines 17-19. Ishizaki is silent to such effects, let alone suggest the claimed structure enabling such effects.

Thus, all the claim limitations of independent claims 11 and 24 are not taught or suggested by the prior art, and said independent claims are nonobvious.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claims 11 and 24 are patentable for the

reasons set forth above, it is respectfully submitted that all claims dependent thereon (12-14 and 25-27 respectively) are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination.

Based on the foregoing, it is respectfully submitted that all pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejection under 35 U.S.C. § 103(a) be withdrawn.

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CONCLUSION

Accordingly, it is urged that the application, as now amended, is in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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